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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/544,826	04/06/2000	Mathias Johansson	34646-00433USPT	9284

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EXAMINER

HOM, SHICK C

ART UNIT PAPER NUMBER

2666

DATE MAILED: 05/18/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/544,826

Applicant(s)

JOHANSSON ET AL.

Examiner

Shick C Hom

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– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 April 2004.
2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-19 and 21-46 is/are pending in the application.
4a) Of the above claim(s) 38 and 39 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 2-19, 21-37, 40-46 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 2-19 and 21-46 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 3-10, 13-14, 16-19, 22-29, 32-33, 35-37, and 40-46 are rejected under 35 U.S.C. 102(e) as being anticipated by Balachandran et al. (6,625,133).

Regarding claims 40 and 42-46:

Balachandran et al. disclose the mobile radio communication system, a method of implementing a flexible radio link protocol (RLP) that enables transmission of data between a radio access

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network and a mobile station (see col. 1 lines 22-36 which recite using the radio link protocol RLP for communication between the radio network and the mobile station) when operating with a plurality of data transmission modes, wherein each of said data transmission modes has an associated set of rules for transmitting data, said method comprising the steps of:

informing the radio access network and the mobile station of a specific data transmission mode to be utilized for delivery of data between the radio access network and the mobile station (see col. 12 lines 47-56 which recite the use of the BEGIN protocol data unit PDU handshake for identifying the mode of operation clearly anticipate the plurality of data transmission modes and step for informing the radio access network and the mobile station of a specific data transmission mode);

determining by the radio access network/mobile station, a first set of rules corresponding to the specific data transmission mode, said first set of rules governing whether the radio access network/mobile station should send polling requests to the mobile station/radio access network, and if so, how and/or when the polling requests should be sent (see col. 12 line 57 to col. 3 line 7 and col. 13 lines 37-57 which recite the set of rules governing the network including extracting the poll bit and setting the ARQ_Status_polled flag; col. 9 lines 36-52 which

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recite how the control and data fields of the protocol data unit are filled; and col. 14 lines 32-65 which recite how long to wait before making an access attempt); upon determining that the radio access network/mobile station should send polling requests to the mobile station/radio access network, sending a polling request from the radio access network/mobile station to the mobile station/radio access network in accordance with the first set of rules (see col. 7 line 57 to col. 8 line 14 which recite the channel access manager CAM sending the poll and the controller receiving the poll from the CAM); determining by the mobile station/radio access network, a second set of rules corresponding to the specific data transmission mode, said second set of rules governing whether the mobile station/radio access network should send status reports to the radio access network/mobile station in response to receiving one or more polling requests, and if so, now and/or when the status reports should be sent (see col. 5 lines 47-59 which recite the Poll Indicator for ACK transaction and col. 4 which recite the ARQ status being provided as feedback in both uplink and downlink transmissions); and upon determining that the mobile station/radio access network should send status reports to the radio access network/mobile station, sending a status report from the mobile station/radio access network to the radio access

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network/mobile station in accordance with the second set of rules (see col. 12 lines 22-36 which recite the CAM receiving the acknowledgment status clearly anticipate the status report being send to the radio access network/mobile station).

Regarding claims 3 and 22:

Balachandran et al. disclose wherein the first set of rules causes the radio access network to send the polling request when the status report has not been received by the radio access network and a polling timer has timed out (see col. 8 lines 43-51 and col. 14 lines 32-65).

Regarding claims 4 and 23:

Balachandran et al. disclose wherein the first set of rules causes the radio access network to send the polling request when the radio access network has transmitted a predefined number of Protocol Data Units (PDUs) (see col. 7 lines 22-43).

Regarding claims 6 and 25:

Balachandran et al. disclose wherein the first set of rules causes the radio access network to send the polling request when the radio access network has transmitted during a predefined portion of a transmitting window (see col. 10 lines 50-65).

Regarding claims 7 and 26:

Balachandran et al. disclose wherein the first set of rules causes the radio access network to send the polling request when

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the radio access network has transmitted during a predefined period of time (see col. 8 lines 43-51 and col. 14 lines 32-65).

Regarding claims 8 and 27:

Balachandran et al. disclose wherein the first set of rules causes the radio access network to defer sending the polling request for a predefined period of time (see col. 8 lines 43-51 and col. 14 lines 32-65).

Regarding claims 9 and 28:

Balachandran et al. disclose adjusting by the radio access network, a transmission window parameter in response to receiving the status report (see col. 10 lines 50-65).

Regarding claims 10 and 29:

Balachandran et al. disclose retransmitting by the radio access network, at least one Protocol Data Unit (PDU) responsive to receiving said status report (see col. 8 lines 43-51 and col. 14 lines 32-65).

Regarding claims 13 and 32:

Balachandran et al. disclose wherein the second set of rules causes the mobile station to transmit the status report to the radio access network if the mobile station detects at least one missing or incorrectly received Protocol Data Unit (PDU) (see col. 4 lines 29-36).

Regarding claims 14 and 33:

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Balachandran et al. disclose wherein the second set of rules causes the mobile station to transmit the status report to the radio access network when a predefined number of Protocol Data Units (PDUs) is received (see col. 7 lines 22-43).

Regarding claim 16:

Balachandran et al. disclose wherein the second set of rules causes the receiving peer entity mobile station to transmit the status report to the radio access network in response to receiving the polling request (see col. 7 lines 22-43, col. 7 line 57 to col. 8 line 14, and col. 8 lines 52-63).

Regarding claims 17 and 35:

Balachandran et al. disclose wherein the second set of rules causes the mobile station to transmit the status report to the radio access network when the radio access network has transmitted during a predefined portion of a transmitting window (see col. 10 lines 50-65).

Regarding claims 18 and 36:

Balachandran et al. disclose wherein the second set of rules causes the mobile station to send the status report to the radio access network during a predefined period of time (see col. 8 lines 43-51 and col. 14 lines 32-65).

Regarding claims 19 and 37:

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Balachandran et al. disclose wherein the second set of rules causes the mobile station to defer sending the status report for a predefined period of time (see col. 8 lines 43-51 and col. 14 lines 32-65).

Regarding claim 41:

Balachandran et al. disclose wherein the plurality of data transmission modes includes transparent data transfer, unacknowledged data transfer, and acknowledged data transfer (see col. 4 lines 38-41).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered

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therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103[®] and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 2, 11, 12, 15, 21, 30, 31, and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Balachandran et al. (6,625,133) in view of Safadi (5,847,751).

Balachandran et al. disclose the method and system described in paragraph 3 of this office action.

Balachandran et al. did not teach the radio access network sends the polling request when a last PDU in a transmission buffer is transmitted as in claims 2, 21; the radio access network retransmits at least one PDU responsive to receiving the status report, if the status report is plausible as in claims 11, 30; the mobile station transmits the status report to the radio access network if an estimated PDU counter is not counting, the mobile station not sending the status report to the radio access network if the estimated PDU counter is

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counting as in claims 12, 31; and the mobile station transmits the status report to the radio access network when a predefined number of SDUs is received as in claims 15, 34.

Safadi teaches that it is known to request diagnostic/status information; retransmit the request; and the step of adjusting the number of time slots, and increases the size of the frame, adjusts the spacing between time slots as set forth at col. 24 line 44 to col. 25 line 32 in the field of digital and multiplex communications for the purpose of distribution of broadcast and interactive digital services to consumer residences which clearly anticipate the radio access network retransmitting responsive to receiving the status report, if the status report is plausible as in claims 11, 30. Col. 6 lines 26-49 which recite the broadcast digital services information includes ATM to AAL5-service data units SDU and col. 9 line 63 to col. 10 line 3 which recite forwarding AAL5-SDU protocol data units PDU to the STT central processing unit as well as the service stream to the other STT processing elements clearly anticipate the PDU in the transmission buffer being transmitted as in claims 2, 21; and the predefined number of SDUs being received as in claims 15, 34. Col. 18 lines 1-34 which recite the four bit continuity counter field being an incremental counter which increments with each transport packet

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with the same PID clearly anticipate the mobile station transmits the status report to the radio access network if an estimated PDU counter is not counting, the mobile station not sending the status report to the radio access network if the estimated PDU counter is counting as in claims 12, 31.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the radio access network sending the polling request when a last PDU in a transmission buffer is transmitted; the radio access network retransmits at least one PDU responsive to receiving the status report, if the status report is plausible; the mobile station transmits the status report to the radio access network if an estimated PDU counter is not counting, the mobile station not sending the status report to the radio access network if the estimated PDU counter is counting; and the mobile station transmits the status report to the radio access network when a predefined number of SDUs is received as taught by Safadi to the system of Balachandran et al. The radio access network sending the polling request when a last PDU in a transmission buffer is transmitted; the radio access network retransmits at least one PDU responsive to receiving the status report, if the status report is plausible; the mobile station transmits the status report to the radio access network if an estimated PDU counter

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is not counting, the mobile station not sending the status report to the radio access network if the estimated PDU counter is counting; and the mobile station transmits the status report to the radio access network when a predefined number of SDUs is received can be implemented by programming these steps in the network of Balachandran et al. The motivation for including the step of the radio access network sending the polling request when a last PDU in a transmission buffer is transmitted; the radio access network retransmits at least one PDU responsive to receiving the status report, if the status report is plausible; the mobile station transmits the status report to the radio access network if an estimated PDU counter is not counting, the mobile station not sending the status report to the radio access network if the estimated PDU counter is counting; and the mobile station transmits the status report to the radio access network when a predefined number of SDUs is received as taught by Safadi in the communication system of Balachandran et al. being that Safadi teaches the desirable advantage of a higher degree of performance with using fiber-coax metropolitan area network for distributing services to consumer with the disclosed protocol, i.e. PDU, and said higher degree of performance being desirable to achieve more efficient system operation in Balachandran et al.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Friedman et al. disclose network security device which performs MAC address translation without affecting the IP address.

7. Any response to this nonfinal action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9306, (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington. VA., Sixth Floor (2600 Receptionist at (703) 305-4750).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shick Hom whose telephone number is (703) 305-4742. The examiner's regular work schedule is Monday to Friday from 8:00 am to 5:30 pm EST and out of office on alternate Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao, can be reached at (703) 308-5463.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

SH

May 14, 2004



DINGLETON
PATENT EXAMINER